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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,721	12/28/2001	Masayuki Sanbayashi	Q63304	4073

7590 06/02/2003

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Washington, DC 20037-3213

EXAMINER
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HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 06/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/028,721

Applicant(s)

SANBAYASHI ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Applicants' remarks and amendments, filed on March 19, 2003, have been carefully considered. No claims have been canceled or added; claims 1-27 remain pending in this application.

*Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicants' Priority Documents were filed on April 28, 2002.

In the previous Office Action, claim 6 was indicated as being both rejected (i.e., included in an art rejection) and as containing allowable subject matter. Applicants are correct in that claim 6 was inadvertently and mistakenly included with the claims indicated as containing allowable subject matter. The Examiner apologizes for the error and appreciates Applicants' observation.

*Withdrawn Rejections*

The 102(b) rejection of claims 1, 3, 6, 7, 9, 12-15, 18, and 19 as being anticipated by Taoda et al. (U. S. Patent No. 5,981,425) stated in the previous Office Action has been withdrawn in view of Applicants' persuasive arguments relating thereto.

The 102(e) rejection of claims 1-3, 6-9, 12, 18, 19, and 24 as being anticipated by Hagihara et al. (U. S. Patent No. 6,383,980) stated in the previous Office Action has also been withdrawn in view of Applicants' persuasive arguments relating thereto.

Additionally, the Examiner's omission of citing Hagihara et al. '980 on the Form PTO 892 was inadvertent; the Examiner apologizes for the oversight. This reference will be cited on the Form PTO 892 included with this Office Action.

*New Ground(s) of Rejection*

1. Applicant's arguments with respect to claims 1-3, 6-9, 12-15, 18, 19, and 24 and the rejection of these claims set forth in the previous Office Action have been considered but are moot in view of the new ground(s) of rejection.

The new ground(s) of rejection is being made in view of the newly discovered reference(s) to Tanaka et al. (Published Application No. 2002/0187338). Rejections based on the newly cited reference(s) follow.

2. The indicated allowability of claims 4, 5, 10, and 11, as set forth in the previous Office Action, is withdrawn in view of the newly discovered reference(s) to Tanaka et al. (Published Application No. 2002/0187338). Rejections based on the newly cited reference(s) follow.

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### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims 1-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13, 15-41, 48, 65, and 66 of copending Published Application No. 2002/0187338.**

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the instant application are directed to *photo-functional* particles comprising titanium dioxide and a condensed phosphate containing an alkaline earth metal, said condensed phosphate present on the surface of the titanium dioxide, whereas the claims in the Published Application are directed to *photocatalytic* particles comprising titanium dioxide (in either anatase, rutile, or brookite form) and photocatalytically inactive ceramic, wherein the ceramic is exemplified by an alkaline earth metal condensed phosphate. See claims 1, 6-13, 15, and 16 of the

Published Application, and claims 1, 3-7, 9-12 of the instant application. Because the respective sets of claims recite the same (if not similar) components, and because the terms "photocatalytic" and "photo-functional" are considered synonymous, the claims in the respective applications are considered to read upon each other.

The remaining instant claims, like those of the Published Application, are directed to an aqueous slurry, a coating agent, and an organic polymer, all comprising the aforementioned photo-functional particles (or photocatalytic particles, as recited in the Published Application).

Additionally, although the claims in the Published Application recite properties and characteristics not recited in the claims in the instant application, one of ordinary skill in the art would expect these properties and characteristics to be present in the photofunctional particles of the instant application, because the respective sets of claims recite the same (if not similar) components.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### *Conclusion*


5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (703) 308-3317. The examiner can normally be reached on Mondays-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

  
Lynn Hailey/pth  
Examiner, Art Unit 1755  
May 20, 2003

  
Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700